

## Criterion A: Planning

### The Scenario:

The client for my internal assessment is my father Thomas Abraham, a current Java software developer at JP Morgan Chase, and an avid Formula One fan. My father has been considering investing in a business venture such as a fitness center for quite some time; his technical knowledge and obvious need proved him to be the perfect client for my internal assessment.

My father and I were discussing how a functional website can prove to be a foundational tool for any startup company; consequently, my father was going to require a functional website in order for him to start his new Formula One themed fitness center. Due to his current lack of time, I suggested that I could develop a website for his new company which I could then use as the topic for my IA. Following this discussion I consulted my advisor Mr. King and he approved this endeavor.

### Rationale for Solution:

The purpose of this website would be to provide an easy way for users to log into their accounts and sign up for various classes, sessions, and other services. I first started out by researching several database providers as my website would need to store large amounts of information about the users and the classes they sign up for. After doing some research I came to the conclusion that MongoDB seemed to be the best choice for my project; MongoDB allowed me to build quick and easy schemas while providing quick querying options. I was also considering SQL however SQL seemed to be quite a bit slower and did not have the same querying capabilities as MongoDB.

I then researched the best languages to be able connect with MongoDB, HTML, and CSS. Eventually I chose Javascript as the language I would code all of the functionality of the website with. I chose Javascript because it was a quick and easy language to learn, it worked seamlessly with MongoDB, and there were several resources available for javascript web development such as nodejs. I met with my client to discuss what I had decided (first meeting with client in Appendix B). Finally, in terms of a success criteria I decided that main aspects would be that the user would have the ability to sign in and sign up, schedule classes, and view the classes they have signed up for.

### Success Criteria:

- Website should be able to verify a user's memberID from a set of pre-defined ID's when signing up and in and store the user's IP Address
- Website should be able to store the user's password when signing up
- Website should be able to display all the available classes
- Website should decrement the available spots as soon as a user signs up for a class
- Users should not be able to sign up for the same class twice

- ➔ Users should be able to search for specific classes based on class name, instructor name, and date

Word Count: 472